

CLAIMS

I claim:

- 5           1. A method for enabling a first software program  
using a first binary specification in a first execution  
environment to employ a limited functionality of a  
second software program using a second binary  
specification in a second execution environment, the  
10 method comprising:  
            creating a bridge in said first execution  
environment; and  
            creating, in said first execution environment  
using said bridge, a proxy wrapping an interface  
15 to said limited functionality of said second  
software program in said second execution  
environment.
- 20           2. A method as in Claim 1 further comprising:  
            creating a first execution environment object  
including said second binary specification.
- 25           3. A method as in Claim 2 further comprising:  
            creating a second execution environment  
object including said first binary specification.
- 30           4. A method comprising:  
            generating a binary specification object for  
a first execution environment;  
            generating a binary specification object for  
a second execution environment; and  
            generating a bridge object wherein said  
bridge object is used in mapping objects from said  
second execution environment to said first  
35 execution environment.

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5. The method of Claim 4 further comprising:  
using said bridge object to generate a proxy  
wrapping an interface in said second execution  
environment.

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6. A method for using functionality in a second  
execution environment in a first execution environment  
comprising:

calling a method in a proxy interface in said  
10 first execution environment; and  
converting said method call by said proxy  
interface to a corresponding method call for  
execution in said second execution environment.

15 7. The method as in Claim 6 further comprising:  
dispatching said corresponding method call  
for execution in said second execution environment  
to said second execution environment by said proxy  
interface.

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8. The method of Claim 6 where said converting  
said method call further comprises:

using a type description to convert  
parameters from said first execution environment  
25 to said second execution environment.

9. The method of Claim 7 further comprising:  
executing said corresponding method call in  
said second execution environment, and returning  
30 results of said execution to said proxy interface.

10. The method of Claim 9 further comprising:  
using a type description to convert said  
returned results from said second execution  
35 environment to said first execution environment.

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11. The method of Claim 6 wherein said second execution environment is a C++ programming language execution environment.

5 12. A method for using functionality in a second execution environment in a first execution environment comprising:

calling a method in a proxy interface in said first execution environment;

10 converting said method call by said proxy interface to a corresponding method call for execution in said second execution environment, wherein said converting said method call comprises:

15 using a type description to convert parameters from said first execution environment to said second execution environment; and

20 dispatching said corresponding method call for execution in said second execution environment to said second execution environment by said proxy interface.

13. The method of Claim 12 further comprising:

25 executing said corresponding method call in said second execution environment, and returning results of said execution to said proxy interface.

14. The method of Claim 13 further comprising:

30 using a type description to convert said returned results from said second execution environment to said first execution environment.

35 15. A computer program product comprising computer program code for a method for enabling a first software program using a first binary specification in

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a first execution environment to employ a limited functionality of a second software program using a second binary specification in a second execution environment, the method comprising:

- 5           creating a bridge in said first execution environment; and  
            creating, in said first execution environment using said bridge, a proxy wrapping an interface to said limited functionality of said second  
10          software program in said second execution environment.

16. The computer program product of Claim 15 wherein said method further comprises:

- 15           creating a first execution environment object including said second binary specification.

17. The computer program product of Claim 16 wherein said method further comprises:

- 20           creating a second execution environment object including said first binary specification.

18. A computer program product comprising computer program code for a method for using  
25          functionality in a second execution environment in a first execution environment, said method comprising:

- calling a method in a proxy interface in said first execution environment; and  
            converting said method call by said proxy  
30          interface to a corresponding method call for execution in said second execution environment.

19. The computer program product of Claim 18 wherein said method further comprises:

- 35           dispatching said corresponding method call for execution in said second execution environment

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to said second execution environment by said proxy interface.

20. The computer program product of Claim 18  
5 wherein said method further comprises:  
    using a type description to convert  
    parameters from said first execution environment  
    to said second execution environment.

10 21. The computer program product of Claim 19  
    wherein said method further comprises:  
        executing said corresponding method call in  
        said second execution environment, and returning  
        results of said execution to said proxy interface.

15 22. The computer program product of Claim 21  
    wherein said method further comprises:  
        using a type description to convert said  
        returned results from said second execution  
20 environment to said first execution environment.

23. A computer storage medium having stored  
    therein a structure comprising:  
        a binary specification for an execution  
25 environment including:  
            a simple common identity structure.

24. The computer storage medium of Claim 23  
    wherein said binary specification further comprises:  
30 an extended environment structure.

25. The computer storage medium of Claim 23  
    wherein said simple common identity structure includes:  
        a type name.

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26. The computer storage medium of Claim 23  
wherein said simple common identity structure includes:  
a method acquire.

5 27. The computer storage medium of Claim 23  
wherein said simple common identity structure includes:  
a method release.

28. The computer storage medium of Claim 24  
10 wherein said simple common identity structure includes:  
a pointer to said extended environment  
structure.

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